



Science Your Way Texts



Emily Starr
President/CEO

Hi! I know the challenges of elementary education. Fueled by my teaching experience and a desire to help fellow educators, I left the classroom in 2005 and StarrMatica Publishing Group was born. 16 years later, I continue to be a leader in the field of innovative classroom resources. I have a passion for creating STEAM teaching resources to support the Next Generation Science Standards (NGSS) and to help teachers differentiate reading instruction.

Are you settling for texts that don't target your curriculum and that your students struggle to read?

StarrMatica is different. Quickly find texts designed for each K-5 NGSS and written at six different Lexile levels.

You can even customize a text to teach and assess specific Common Core ELA Standards.

Visit our website for a **FREE TRIAL** and full access to all of our *Science Your Way* texts including aligned quiz questions, graphic organizers, and writing prompts:

www.starrmatica.com





WHAT DO YOU NOTICE IN THIS PHOTOGRAPH OF EMPEROR PENGUINS?

SAFETY IN NUMBERS

By Sarah Wassner Flynn

Brrr! The average winter temperature at the South Pole, the southernmost point on Earth, is about -56.2°F (-49°C). That's much colder than the temperature in your freezer! So how do the animals there keep from turning into popsicles? Simple! They stick together.

Staying Toasty

On those freezing days, it is not usual to see groups of Emperor penguins huddling together in large groups. What are they doing? These penguins are getting as close as they can to keep warm and safe

Think about being outside on a cold day. If you huddle together with your friends, you will feel warmer. The same goes for animals. The closer you are, the more body heat you **conserve**, or save. In cold climates, animals like penguins gather together in tight groups to share body heat and stay sheltered from the wind. In fact, the penguins' behavior is so effective that the temperature can rise to nearly 100°F (37.5°C) at the center of the huddle. That's downright hot!

As humans, we conserve body heat by doing things like wearing a jacket or curling up under a blanket. We can also turn up the heat in our house or in our car. Animals--especially those living in the wild--cannot do that. So they have **adapted** to stay warm in different ways. One of these ways is to form a huddle, like the penguins. If they didn't do this, they would have a harder time surviving in their harsh environment.



Emperor penguins take turns being on the outside and inside of the group.

Those on the outside get cold and move to the inside to get warm.

Those on the inside get hot and move to the outside to cool off!



Impalas may form herds of 50 or more.

Follow the Herd

Far away in Africa, a much hotter place on Earth, another group of animals have formed a **herd**. But they are not trying to keep warm. This is a herd of impalas. They need to stay together to keep safe.

Impalas are a favorite meal of predators like lions and leopards. If an impala is alone grazing on the grassy, flat plain, it is a very easy target for a hungry lion.

But if a lion goes after hundreds of impalas grouped together, it's more of a challenge. The impalas can spread out in many different directions, which can confuse the lion. The group tactics also enable the bigger impalas to protect the younger ones. Forming a group for safety is another type of adaptation. It helps impalas survive.



Thousands of Monarch butterflies roost together

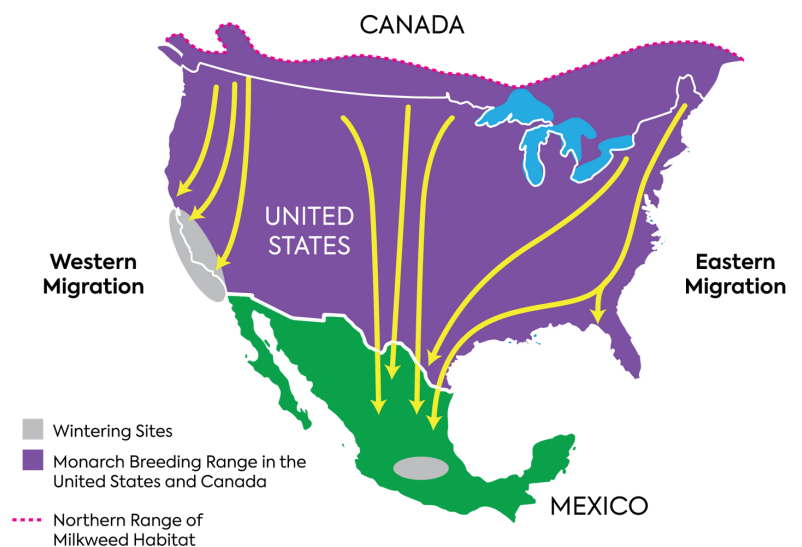
Traveling Together

Every year, the colorful Monarch butterflies fly to California and Mexico. Butterflies cannot **survive** in cold weather, so they head south where it is warm. As they travel, the butterflies will **roost**, or gather together, in a giant group when it is time to rest. Similar to the penguins, this behavior keeps them safe from the chilly air. It is warmer when they are all together. Just like the impalas, the roosting behavior also makes them less **vulnerable** to predators.

Get In the Group

As humans, we choose to stay near other people for different reasons. Maybe you stay close to your parents in crowded places so you don't get lost. Or you might like to stick by your friends because they make you laugh. For some animals, however, staying in a group is not really a choice. It is the only way they can survive in the wild.

Butterfly Migration





WHAT DO YOU NOTICE IN THIS PHOTOGRAPH OF EMPEROR PENGUINS?

SAFETY IN NUMBERS

By Sarah Wassner Flynn

Brrr! It is winter. You are at the South Pole.

This is the coldest place on Earth. It is even colder than your freezer!

How do animals stay alive there? They stay together.

Staying Toasty

Think about being outside on a cold day. You can warm up with a coat. Or you can huddle up with your friends. Together, you share body heat. Animals in the wild do this too. Penguins can't wear coats. But they can share body heat.

Penguins **survive** by staying close. They form large groups. This keeps them warm. It also keeps them out of the wind. This is how they've **adapted** to living in the cold.

Follow the Herd

Far away in Africa is a **herd** of impalas. It is hot in Africa. Impalas do not need to keep warm. Instead, a herd keeps them safe. Why? Lions eat impalas. One impala is easy to catch. A group of impalas is harder to hunt.

The impalas spread out. This confuses the lion. Also, older impalas can protect their young. Forming a group helps the impalas. Maybe they won't be the hungry lion's next meal.



Emperor penguins take turns being on the outside and inside of the group.

Those on the outside get cold and move to the inside to get warm.

Those on the inside get hot and move to the outside to cool off!



Impalas may form herds of 50 or more.



Thousands of Monarch butterflies roost together

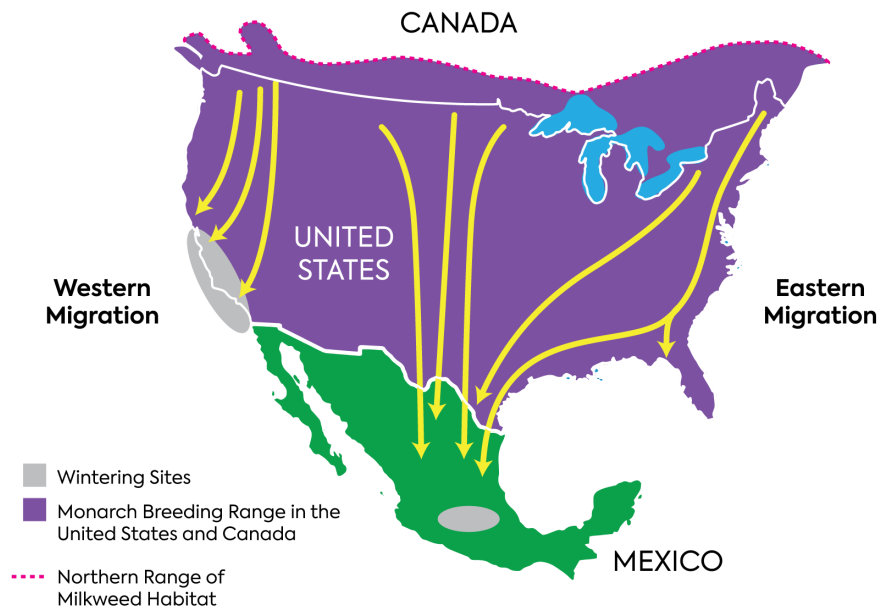
Traveling Together

Monarch butterflies can't live in the cold. They fly south every year. It is a long trip. Sometimes the butterflies need a break. They rest in a giant group. This is called **roosting**. Like the penguins, it keeps them warm. Like the impalas, it also keeps them safe from **predators**.

Get In the Group

Why do you join a group? Maybe it is so you don't get lost. Or maybe it is to have fun together. For some animals, staying in a group is not a choice. It is the only way they can stay alive in the wild.

Butterfly Migration





Thank you!

Thank you for checking out our texts! We hope that you will enjoy using them with your students as much as we do! Please remember that it is meant for *personal* or *educational* use only. You may not sell, modify, or distribute through other websites.

Like what you see? We have more! Visit our website and sign up for a free trial to gain full access to all of our *Science Your Way* texts:

www.starrmatica.com

If you experience a problem with this file or find a mistake, please let us know, and we will do our best to fix it.

Like and follow us on our social media accounts for giveaways, weekly themed content, and more!

FOLLOW US!

